

Amendments to Claims

This listing of Claims will replace all prior versions and listings of claims in the application.

Claim 1. (currently amended) An isolated polynucleotide comprising:

- (a) a nucleotide sequence encoding a polypeptide having lipoxygenase activity, wherein the amino acid sequence of the polypeptide and the amino acid sequence of SEQ ID NO:~~2, 4, 6, 8, 10, 12, 14, 16, or 18~~ have at least 80% sequence identity based on the Clustal alignment method, or
- (b) the complement of the nucleotide sequence, wherein the complement and the nucleotide sequence contain the same number of nucleotides and are 100% complementary.

Claim 2. (currently amended) The polynucleotide of Claim 1, wherein the amino acid sequence of the polypeptide and the amino acid sequence of SEQ ID NO:~~2, 4, 6, 8, 10, 12, 14, 16, or 18~~ have at least 85% identity based on the Clustal alignment method.

Claim 3. (currently amended) The polynucleotide of Claim 1, wherein the amino acid sequence of the polypeptide and the amino acid sequence of SEQ ID NO:~~2, 4, 6, 8, 10, 12, 14, 16, or 18~~ have at least 90% identity based on the Clustal alignment method.

Claim 4. (currently amended) The polynucleotide of Claim 1, wherein the amino acid sequence of the polypeptide and the amino acid sequence of SEQ ID NO:~~2, 4, 6, 8, 10, 12, 14, 16, or 18~~ have at least 95% identity based on the Clustal alignment method.

Claim 5. (currently amended) The polynucleotide of Claim 1, wherein the amino acid sequence of the polypeptide comprises the amino acid sequence of SEQ ID NO:~~2, 4, 6, 8, 10, 12, 14, 16, or 18~~.

Claim 6. (currently amended) The polynucleotide of Claim 1 wherein the nucleotide sequence comprises the nucleotide sequence of SEQ ID NO:~~1, 3, 5, 7, 9, 11, 13, 15, or 17~~.

Claim 7. (original) A vector comprising the polynucleotide of Claim 1.

Claim 8. (original) A recombinant DNA construct comprising the polynucleotide of Claim 1 operably linked to a regulatory sequence.

Claim 9. (original) A method for transforming a cell, comprising transforming a cell with the polynucleotide of Claim 1.

Claim 10. (original) A cell comprising the recombinant DNA construct of Claim 8.

Claim 11. (original) A method for producing a plant comprising transforming a plant cell with the polynucleotide of Claim 1 and regenerating a plant from the transformed plant cell.

Claim 12. (original) A plant comprising the recombinant DNA construct of Claim 8.

Claim 13. (original) A seed comprising the recombinant DNA construct of Claim 8.

Claim 14.-20. (canceled)